

Report of the Washington State Aviation System Plan Study Team

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Charge to the Study Team

The Aviation System Plan Study Team is one of three study teams (System Plan, Education, and Search and Rescue) convened by the Washington State Department of Transportation (WSDOT) Aviation Division, through the division's Aviation Advisory Committee to examine key strategic directions. The System Plan Study Team met during July-November 2003 to develop recommendations related to the development of the Washington State Aviation System Plan.

The recommendations of the study team provide input for three primary purposes:

1. The formation of the WSDOT Aviation's 2004-2005 Business Plan
2. The long-range strategic plan of the WSDOT Aviation
3. The work program for the Legislative Transportation Committee

The study team included individuals from varying geographical regions of the state, varying professional backgrounds and aviation interests, including large public ports, regional planning organizations, small and medium sized cities, state agencies, federal agencies, and the Washington State Legislature. The study team was asked to examine the current aviation environment, identify emerging issues, and recommend a vision, strategic priorities, and define the role and funding options for WSDOT Aviation.

Role of the WSDOT Aviation

Washington's aviation system is a public-private partnership made up of 141 city, county, public port, private, and state-owned airports. The system provides critical transportation linkages for people, goods and public services (fire, medical, and search and rescue). It plays a critical role as a lifeline to and from isolated rural communities, especially for medical and emergency services. It is an essential component of Washington State's overall transportation system.

WSDOT Aviation is the primary advocate for Washington's statewide aviation transportation system at the state and local level. To fulfill that role, the division focuses primarily on the following responsibilities:

- Protect the viability of airports as an important asset to the state economy and of local communities;
- Protect and enhance the physical condition and safety of the airports that comprise the state system;
- Support the safety of pilots and the public through pilot training and licensing and search and rescue programs;
- Support the economic viability of rural communities with adequate capacity;
- Provide technical assistance and facilitate compatible land use decisions near or surrounding airports in support of preserving and enhancing the aviation system;
- Provide information to decision makers and the public so they can make informed decisions about aviation's role in our state transportation system and as an economic asset.

Policy Framework and Key Issues

The Washington State Aviation Policy is guided by four major policy goals that define the State's interest in aviation, adopted in 1998 by the Washington State Transportation Commission (Resolution 567). Since the policy framework was adopted in 1998, WSDOT Aviation has initiated several programs to meet the above policies. While still some programs have been completed with exceptional results, many challenges still exist. The following table provides status information on WSDOT Aviation achievements in meeting the policy goals, and points to some unmet needs.

PROGRESS TOWARD MEETING AVIATION POLICY GOALS

Policy	In Place	Unmet Needs
Preservation It is the State's interest that aviation facilities and services be preserved that provide access for all regions of the state to the nation's air transportation system, provide for emergency management, and support local economies.	Currently 73 airports have fully or partially addressed RCW 36.70.547, protecting airports from incompatible development. The WSDOT Aviation is providing technical assistance to help remaining jurisdictions implement the GMA provision to preserve and enhance airports. There is a temporary increase to GA airport funding due to a 3% increase of the gas tax and a \$7 increase in registration fees.	As it the case with the State highway system, Washington state's airports are experiencing deteriorating pavement due to deferred maintenance. The temporary increase to GA airport funding is an important step, but further action is needed to assure ongoing funding stability.
Safety It is the State's interest that transportation by air be safe.	Search and Rescue Program continues to operate with high level of volunteerism. WSDOT Aviation adopted state airport design standards and construction standards and introduced a General Aviation Airport Security Program to institute good business practices at smaller GA airports. Each airport is developing a security plan that may include additional signage or lights on the ramp. WSDOT is providing technical assistance to airports in development of the plans and grants for security projects.	<ul style="list-style-type: none"> ▪ Funding and management of disaster relief efforts still need to be refined. ▪ Deteriorating pavement and other unmet infrastructure needs, such as parallel taxiways, creates a safety hazard at some airports. ▪ Lack of local commitment to some airports poses challenges for overcoming safety issues.
Capacity It is the State's interest that there be sufficient airport capacity to respond to growth in demand to ensure access across the State, the nation and the world.	GMA recognizes public and private airports as essential public facilities. The agency has conducted an economic study that includes transportation links to airports. This data is available on request to cities and counties, city planners, and airport sponsors.	Public awareness of the economic and social value of GA airports continues to be low. Current and future system capacity is continuing to decline, due to economic pressures, pavement deterioration, and land use conflicts. At the same time, the demand on airports is increasing due to increased population and economic activity. The resulting gap cannot be addressed with the current revenue stream, and local political pressures make it difficult for airports to expand their facilities. Furthermore, the State role in ensuring capacity has not yet been defined.
Environmental Protection It is the State's interest that negative environmental impacts of airports on people and the natural environment be mitigated.	Jurisdictions must follow federal and state environmental guidelines to qualify for grants.	Increased environmental constraints on local, state and national level creates operational and political challenges that can limit the ability for future airport expansion. On-going environmental issues include noise impacts costs of waste cleanup, and the presence of wetlands or stormwater retention facilities on or directly adjacent to airports. It has been noted that there are cases where mitigation occurs for a non-aviation purpose in the vicinity of airports.

Other Policy Issues

Funding Equity

Currently 95% of all aircraft fuel sold in Washington is exempt from paying state aviation fuel taxes. Exempt users include agricultural operations, air carrier and supplemental air carriers, aircraft used for testing and experimental purposes, training of crews for the purchase of air carrier aircraft, the operation of a local service commuter and governmental use. However, while commercial service is exempt from state fuel tax, they pay federal fuel taxes into the national Aviation Trust Fund, which provides for FAA Airport Improvement Program grants at the National Plan of Integrated Airport Systems (NPIAS) airports. Over one-half (77) of the public use airports in Washington are not NPIAS airports, and therefore do not qualify for Federal funds. Nearly all of these are municipal airports local in rural areas. Tax-exempt aircraft that use these airports do not contribute through their taxes to maintenance or improvement of the facilities.

The Need for Flexibility

Aviation is a dynamic field, influenced by changes in Washington's population and in the world economy, and from emerging technologies. It is anyone's guess what the future of aviation will be. For example technological advancements include changing and emerging GPS technology in aviation that may reduce need for ground-based navigation systems, which decreases system costs and increases availability to use smaller airports. Other innovations, such as the growth of air taxis, new experimental aircraft, and sport aviation means a change in the complexity of the aviation system and possible increased importance of smaller rural airports for economic development as well as provision of essential services. These changes lead to questions such as whether certain airfields should be dedicated to specific types of aviation or whether WSDOT should develop airport standards for new types of aircraft.

Intermodal Connections

Once drafted, the WSDOT Aviation Strategic Business Plan will be folded into Washington's Transportation Plan, which covers all modes of Washington's transportation system and is required by state and federal law to be regularly updated. At the same time, opportunities for intermodal connection and access are best identified at the local level, with citizen input. Most System Plan Study Team members believe that Metropolitan and Regional Transportation Planning Organizations (commonly referred to as MPOs and RTPOs) can provide a key vehicle for improving and strengthening intermodal connections. There are 14 such organizations in Washington, made up of local elected officials who provide regional direction for transportation decisions in their communities, consistent with statewide policy. A concern was expressed, however, that serious attention must be given to assuring that the voices of small jurisdictions are heard over the demands of larger communities, and that aviation be treated equitably with other transportation modes, particularly roadway infrastructure. A definition of the roles of MPO's and RTPO's is provided in Appendix A of this report.

Continuing Land Use Conflicts

Local government is continuing to allow land uses near or adjacent to airports that conflict directly with airport operations and the ability to expand. Although WSDOT Aviation is active in working with local jurisdictions to resolve land use conflicts, the problem continues to be pervasive, in part because airports are not "on the radar" as a recognized

community economic resource. Land use conflicts very directly limit the ability of airports to meet future capacity needs.

Quantifying Public Benefit of Airports

Frequently, local jurisdictions take for granted the economic and social benefits of their general aviation airports, or do not have the staff capacity to quantify the benefits of these facilities. Consequently, it is at times difficult for airports to build strong local advocates, and the condition of the airport suffers from gaps in local relationships. The benefits of airports have both a qualitative, community building value and a quantitative economic value. Local, regional and state decision makers need better information about the value of general aviation airports, so they can factor that thinking into their funding priorities. This argues for a continued strong role for the WSDOT Aviation in providing leadership and advocacy for the state aviation system.

Changing State Demographics

The global trend of financial instability for commercial airlines means communities are losing commercial aviation passenger service and those services are becoming more expensive. At the same time that rural communities are less accessed by commercial service, rural medical facilities are closing, resulting in an increased reliance on aviation facilities and quick, short flights to meet emergency medical needs in rural areas. Further, it is the opinion of the Study Team that Washington is experiencing a trend toward “urban flight,” shifting population from urban to rural areas to escape Puget Sound traffic and growth. One member stated that distribution centers are relocating to the Yakima/I-82 area in order to take advantage of central location and avoid Puget Sound traffic.

Other trends that should be noted include:

- An increased need for aviation training and education in light of an aging aviation worker population is a consideration;
- The 2010 Olympics in Vancouver, BC may create significant demands on local aviation infrastructure, particularly for the two-year period following the Olympics;
- Point-to-point flying by air taxi services added to the traditional hub-and-spoke flying by the airlines will affect demand on different parts of Washington’s aviation system;
- Increased airport security requirements could result in further financial stress for all airports, unless additional funds are made available.

Proposed Aviation System Plan Goals

The Study Team believes that WSDOT Aviation can be most effective as an advocate, advisor and facilitator for the aviation system. Washington State does not manage the aviation system, but facilitates airports’ success at the local, regional, state and national level. It is through collaboration and support of the various elements of the system (be it local government decision making about land use, or the maintenance of pavement) that the aviation system can be best nurtured.

This philosophy guides the recommendations of the Study Team. The following statewide system goals are proposed to implement 1998 Washington State Aviation Policy framework:

- Maximize value and impact of public investment in the aviation system statewide;

- Meet priority needs of the aviation system, as identified in the Aviation System Strategic Plan;
- Increase consistency between FAA, State of Washington, and local aviation policies, rules, and regulations by class of airport recognizing that different types of airports have different regulatory and policy needs;
- Assure adequate capacity to accommodate future aviation system needs, especially through airport preservation and enhancement;
- Anticipate and strategically respond to emerging aviation system trends and issues;
- Strive to maintain serviceability and fairness in current public investments in the aviation system, taking into account different roles of airports.

Prioritization Criteria

System Plan Goal	Potential Measure	Comments
Maximize value and impact of public investment in the aviation system.	<ul style="list-style-type: none"> • Positive cost/benefit ratio considering both market and non-market values • Economic development benefits to communities • Demonstrated local engagement and commitment (including volunteerism) • Local perception of airport to non-aviation residents 	Two reports were prepared by WSDOT Aviation to assess economic impacts of airports on Washington State: the quantitative 2001 Aviation Economic Analysis and the qualitative 2002 Rural Airport Study.
Meet priority needs of the aviation system, as identified in the Aviation System Strategic Plan.	<ul style="list-style-type: none"> • Runway condition • Geographic distribution of effective investments to assure statewide coverage by the Aviation System • Distance to regional emergency facilities • Reflects RTPO priorities • Reflects statewide transportation system priorities 	The Study Team believes that equity can be achieved by strategically making investments that in the aggregate are sufficient to assure meaningful improvements to airport assets.
Increase consistency between FAA, State of Washington, and local aviation policies, rules, and regulations by class of airport recognizing that different types of airports have different regulatory and policy needs.	<ul style="list-style-type: none"> • Implementation of action plan that addresses gaps and inconsistencies • Increased levels of communications and partnership • Land use effort with Washington Airport Management Association (WAMA) is underway 	It is recommended that the WSDOT Aviation undertake an inventory of policies and regulations to identify gaps and inconsistencies that result in unacceptable safety or operational costs, and develop an action plan that addresses problems that are identified.
Anticipate and strategically respond to emerging aviation system trends and issues.	<ul style="list-style-type: none"> • Response time to emerging issues as identified in Business Plan 	Need periodic updates to review trends. Consider periodic conferences to bring together leaders of all sectors of Washington Aviation to discuss trends and emerging issues.
Maintain serviceability and fairness in current public investments in the aviation system	<ul style="list-style-type: none"> • Identification of “essential facilities” • # facilities meeting federal and state standards • # of aircraft in system • funding consistency with Aviation vision/goals 	Disseminate information on status of airport infrastructure. Secure legislative authority to achieve funding equity from fuel and license taxes across all users of State supported aviation infrastructure. May need to consider not supporting all airports financially.

Recommendations

Defining the State System

The Study Team engaged in much discussion and concluded that there should be a prioritized state system of airports that designates Airports of Statewide Significance, just as Highways of Statewide Significance are designated in the Washington Transportation Plan.

The initial thinking of the Study Team is that the prioritization and planning process for the state aviation system should take a “bottoms up approach” and rely heavily on local input through the Regional Transportation Planning (RTPO) process, which has been created by state law to identify regional needs through local elected representatives. This approach would allow for better integration of aviation planning with other transportation modes both at the regional and state level. The RTPO process, however, must not disenfranchise smaller jurisdictions where resources are lacking to support paid staff that are knowledgeable about aviation infrastructure needs and issues.

Because the aviation industry is so different in structure from other transportation modes, this shift will require a significant education effort of the part of WSDOT Aviation of all participants. For example, unlike other transportation modes, many general aviation (GA) airports are sustained in large part through volunteer efforts. It will be important to capture the value of these efforts as part of the documentation of matching funds. WSDOT Aviation should continue to support smaller jurisdictions to assure adequate consideration for rural airport infrastructure needs.

Clearly, more data are needed in order to assure that funding and policy decisions about aviation system priorities are truly made in the State’s interest. Some information that should be gathered by WSDOT Aviation includes:

- Gaps in availability of aviation facilities for emergency medical, fire fighting, disaster relief, national defense and air taxi needs, including airport layout plans
- Future capacity needs
- Projected cargo needs
- Gaps in airport capacity that may inhibit economic development of rural areas, or that prevent full participation of rural communities in political processes at the state level
- Reliever airports that are necessary to meet general aviation needs near large commercial airports, which if unmet would increase congestion at the commercial airports
- Capacity of reliever airports to continue to meet the demands of GA aircraft within the context of available parking and hangar space
- Process by which state airports (such as Methow or Lake Wenatchee) could be returned to local governments for management and maintenance

Some broader policy issues also require resolution, such as:

- What is state’s role regarding the long-term (20 year need) issue of aviation system capacity? Should capacity be defined solely in terms of runway operations, or should it be broadened to include space for parking and housing aircraft?
- What is the appropriate balance between funding physical improvements and system planning?

- Should the state have an expanded role in participating in zoning decisions near airports, or regulatory templates that can be adapted by local government, education and outreach?

Funding

In addition to identifying efficiencies and priorities, the Study Team identified some areas that could be explored to enhance and leverage aviation resources. These include:

- Consider flexible requirements and demonstrated local commitment for local matches as prerequisite for state funding, along with compliance with federal and state standards
- Make aviation eligible for other sources like the Public Works Trust Fund
- Explore different types of funding partnerships based on shared interests, for example with environmental agencies or the aviation industry
- Leverage federal airport improvement program funds to the greatest extent possible to further the Airport Aid grant program, to preserve and enhance airports
- Identify areas of the law that should be changed in exemptions to aviation fees and/or fuel taxes to assure that all users equitably support the State aviation system
- Explore property tax exemption on non-revenue producing land at airports
- Explore ways of building greater flexibility into leasehold revenue

WSDOT Aviation should prepare a financial analysis and feasibility study identifying multiple funding alternatives for project development. The analysis should factor input and ideas from key stakeholder groups. Further WSDOT Aviation should periodically convene a statewide conference of aviation stakeholders to discuss aviation system issues and to craft potential solutions.

Wetland and Stormwater Mitigation

The Study Team recommends that airports be allowed to provide wetland and stormwater mitigation offsite, to avoid dangerous conflicts between waterfowl and landing/departing aircraft.

Security

There should be a systematic review of the issues and opportunities associated with security as an emerging issue.

APPENDIX A

The Southwest Washington Regional Transportation Council provides an excellent description and is offered as a guide to the System Plan Study Team.

SOUTHWEST WASHINGTON REGIONAL TRANSPORTATION COUNCIL

What is an MPO?

A Metropolitan Planning Organization is an organization of elected officials in urbanized regions with a population of 50,000 or over. They provide a forum for local decision-making on transportation issues of a regional nature. Under TEA-21, the MPOs objective is to "encourage and promote the development of transportation systems embracing various modes of transportation in a manner which will efficiently maximize the mobility of people and goods within and through urbanized areas and minimize transportation-related fuel consumption and air pollution." (TEA 21, Title 23 United States Code, Section 134: Metropolitan Planning.)

As a condition for receipt of federal capital or operating assistance, MPOs must have a continuing, cooperative and comprehensive transportation planning process. The MPOs are to cooperate with the state in developing transportation plans and programs for urbanized areas. This transportation planning process is to result in plans and programs consistent with the urbanized area's comprehensive planned development. In addition, the plans are to provide for the development of transportation facilities (including pedestrian walkways and bicycle facilities) and serve as an intermodal system for the state, metropolitan areas and the nation.

The MPOs planning functions are carried out in cooperation with the state and local agencies. An MPO can contract staff from other agencies to perform specific elements in the planning process. This cooperative transportation decision-making process provides a forum for the member jurisdictions to discuss regional transportation issues and plan transportation improvements for the region. Currently, eight regional councils perform the MPO transportation planning functions in Washington, representing the urbanized areas of the state.

What is the Regional Transportation Planning Organization?

In 1990, the Washington State Legislature passed the Growth Management Act (ESHB 2929) authorizing the Regional Transportation Planning Program. This program allows for the formation of Regional Transportation Planning Organizations (RTPOs).

The primary functions of RTPOs are to develop regional plans and policies for transportation, growth management, environmental quality, and other topics determined by the RTPO; provide data and analysis to support local and regional decision making; build community consensus on regional issues through information and citizen involvement; build intergovernmental consensus on regional plans, policies and issues, and advocate local implementation; and provide planning and technical services on a contractual basis.

As MPO and RTPO for the region, the Southwest Washington Regional Transportation Council shall:

- Maintain a continuing, cooperative and comprehensive transportation planning process for developing plans and programs that consider all modes of transportation
- Ensure that interstate transportation issues are coordinated between Washington and Oregon
- Certify the transportation elements of comprehensive plans adopted by counties, cities and towns within the region conform with the requirements of §36.70A.070 RCW [Growth Management Act of 1990]
- Develop, adopt and biennially review a long-range Regional Transportation Plan (RTP). The plan should be developed in accordance with the Intermodal surface Transportation Efficiency Act (ISTEA) and other applicable laws and should be consistent with the comprehensive plans of the counties, cities and towns within the region and with the state transportation plan. The Plan will:
 - *Identify transportation facilities that should function as an integrated metropolitan transportation system*
 - *Include a financial plan that demonstrates how the long-range plan can be implemented*
 - *Assess capital investment and other measures necessary to ensure preservation and efficiency of use of the existing metropolitan transportation system to relieve vehicular congestion and maximize the mobility of people and goods, and to indicate, as appropriate, proposed transportation enhancement activities*
- Coordinate the development of a long-range Plan with the process for development of the transportation control measures of the State Implementation Plan required by the federal Clean Air Act
- Provide citizens, affected public agencies, representatives of transportation departments and other interested parties with a reasonable opportunity for comment on the RTP
- Develop a Transportation Improvement Program (TIP) for the area. The Program will include a priority list of projects and project segments to be carried out within the 3-year period after adoption of the TIP and a finance plan that demonstrates how the TIP can be implemented
- Develop a [Congestion Management System](#) that provides for effective management of new and existing transportation facilities eligible for funding under ISTEA and the Federal Transit Act through the use of travel demand reduction and operational management strategies.